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THE REDDISH EGRETS OF CAMERON COUNTY, TEXAS

By J. R. PEMBERTON

WITH NINE PHOTOS

DURING the month of May, 1921, I had an ever-to-be-remembered outing in the region between Brownsville and Point Isabel, Cameron County, Texas. The avifauna of this region is exceedingly interesting because of the presence of numerous species whose centers of distribution lie in Mexico. Austin Paul Smith in the Condor for May-June, 1910, gave an excellent description of the land birds but neglected to fulfill a promise of a later paper on the water birds. I found the water birds to be fully as interesting as the land birds.

The Mexican fishermen of Point Isabel upon learning that I was interested in bird life told me that I should visit Green Island, which they said was a breeding ground for all the species of water birds found thereabouts. They got me so excited that on May 9 I hired two of them to take me in their boat to the island. In pitch black darkness about three in the morning we started, with a good fast boat, a brisk fair wind, plenty of provisions and water. During the five hours it took to make the thirty miles to the island the fishermen told me many interesting facts concerning the region.

Green Island lies about thirty miles north along the coast from Point Isabel, the latter town being just north of the mouth of the Rio Grande River. The Gulf of Mexico proper is shut off from the mainland by a sand bar which parallels the coast for hundreds of miles, in fact from Vera Cruz to near Galveston. This sand bar lies from three to ten miles from the coast, the bar being nearly straight but the distance from the coast varying because of irregularities in the coast line. The mainland is extremely low in elevation, scarcely over 25 feet, and the sand bar likewise. Consequently there are spots within the Laguna de Madre, as the enclosed bay is called, from which neither the mainland nor the sand bar can be seen, and in sailing up this Laguna we were nearly always out of sight of one of the two sides. Imagine my surprise therefore when I learned, first from the fishermen and then by actual test with a stick, that the depth of the water varied from one to three feet over the entire area. This great shallow Laguna is literally alive with fish and thus a source of food for the great throngs of fish-eating birds which inhabit it. My guides demonstrated what can be done with a small hand cast net by simply throwing it at

random into the water. After a few casts we had enough mullet to feed us a week.

During the sail, as soon as daylight arrived, small flocks of terns were constantly in view. I noted eight species in half an hour. The Royal (*Sterna maxima*), Caspian (*Sterna caspia*) and Cabot (*Sterna sandvicensis acuflavida*), with their loud, raucous, and slowly repeated crys, were the most prominent. The Caspians did not mingle with the others, although the Royals and Cabots were nearly always together. The Gull-billed (*Gelochelidon nilotica*) and the Common (*Sterna hirundo*) traveled separately in smaller flocks which were loosely bound together. The flocks were constantly growing smaller as individuals dove into the water after fish and henceforth traveled alone. Black (*Hydrochelidon nigra surinamensis*) and Least Terns (*Sterna antillarum*) traveled in very loose flocks



Fig. 1. REDDISH EGRETS AT HOME. THE LEFT-CENTRAL BIRD HAS JUST FINISHED THE NUP-TIAL DISPLAY. THIS GIVES AN EXCELLENT IDEA ALSO OF THE IMPENETRABLE FRONT PRE-SENTED BY THE BISBIRINDA.

and were rather aimless, constantly changing direction of flight and often beating back. A few Forster Terns (*Sterna forsteri*) were noted and more may have passed, for they are hard to distinguish from the Common unless the beaks are plainly seen. Laughing Gulls (*Larus atricilla*) were not as numerous as any of the terns. Black Skimmers (*Rhynchops nigra*) sat in solid companies on sand bars and black Mexican Cormorants (*Phalacrocorax mexicanus*) swept by in long streamers, low over the water. Brown Pelicans (*Pelecanus occidentalis*) were seen swimming and fishing both near shore and far out in the Laguna. Many unidentifiable sandpipers could be seen with the glasses along both shores when we approached near.

About seven o'clock Merced told me that Green Island was now visible and when he pointed it out to me I saw it, too, but it was a mere discoloration on the horizon. As we skimmed along in the fast little boat the discoloration changed into the island and we were finally near enough to see detail. It appeared to be a turret-shaped island of about thirty acres, and quite covered with thick brush. Surrounding it was a wide beach, on parts of which grew salt grass. Herons were standing in the water, resting on the tops of the brush, and flying leisurely about, but even as we landed none flew out to meet us. No birds

other than herons could be seen and I was disappointed, for I had been expecting to find here the breeding grounds for all the terns, gulls, skimmers, pelicans, cormorants and others. However, the herons made up in numbers for the lack of those species.

We made a camp on the sheltered side of the island and I started for a walk to encircle it. As I walked, the birds watched me casually and flew from their perches or from the shallow water surrounding the island as I approached too closely. In a few minutes I saw that Reddish Egrets (*Dichromanassa rufescens*) formed the major part of the avian inhabitants of the place. They were on all sides of me all the time. Some standing on tops of bushes peered at me, some peered from the shallow water, while some squawked at me from the air. Louisiana Herons (*Hydranassa tricolor ruficollis*), by far the neatest in appearance and most active, were next in abundance. They mixed quite informally with the Egrets excepting when fishing, and then they kept to themselves. Black-crowned Night Herons (*Nycticorax nycticorax naevius*) in full breeding plumage, extremely wary, left their perches abruptly as they caught sight of me, and flew into the interior of the island. Ward Herons (*Ardea herodias wardi*),



Fig. 2. THE REDDISH EGRETS HAD A LOT OF BALANCING TO DO WHEN THEY LIT ON THE BISBIRINDA, FOR THEIR FEET ARE EVIDENTLY TENDER.

appearing unduly large in size, were few in number and seen as individuals only, usually on the wing high in air. A fair number of pure white herons associated with the Reddish Egrets and were afterwards found to be Egrets in the white phase.

After a complete circuit of the island I essayed to enter the brush and get a more intimate acquaintance with these birds. Here I got a severe surprise for it practically could not be done. The brush consisted of straggling mes-

quite, Spanish dagger in abundance, several species of cacti, an *Opuntia* being the most abundant, and last but not least a bush which combined the sharpness of the Spanish dagger, the toughness of manzanita, and the wickedness of barbed wire entanglements Over There, which was dignified by the name of Bisbirinda. A sweet name! I know not the botanical name of this demon and never intend asking it for I already know far too much about that plant. Summarizing—the island was difficult to explore! I returned to the Mexicans and had a session with them, and they smoothed the troubled waters with a word. In the olden days this island was known as a Treasure Island and treasure seekers had cut fine picadas across it in many strategic places. This was different. Treasure hunters thus have their usefulness and often benefit mankind.

I ascended a gentle incline until I stood on the upper level which must have been about twenty feet above the water's surface. As I raised from a crouch I could see over practically the entire thicket and the view was simply astounding. It was literally alive with Egrets, simply thousands of them. Louisiana Herons were loosely associating with the Egrets while the Night Herons were grouped together in a restricted area in which there were no Egrets. The Ward Herons were standing far separated from each other and soon after they first saw me they all left the island. Some of the white birds were quite close to me and I saw that they were Reddish Egrets in the white phase. The violet colored flesh about the face and the legs, together with the size and shape, identified them at once.

As to nests, every individual bush appeared to have nests on and in it. Some extremely large nests were evidently those of the Ward Heron, the most numerous were probably those of the Reddish Egret, while the smallest must have been those of the Louisiana Heron. Those of the Night Heron could not be determined upon. As I slowly made my way along the picadas the fact grew on me that none of the nests contained eggs. The birds were all in full breeding plumage, no young birds were in evidence, and some birds had already been seen carrying sticks to old nests.

In watching the Reddish Egrets many were then seen to be building nests. The greater part of the material consisted of dry salt grass stems, which was

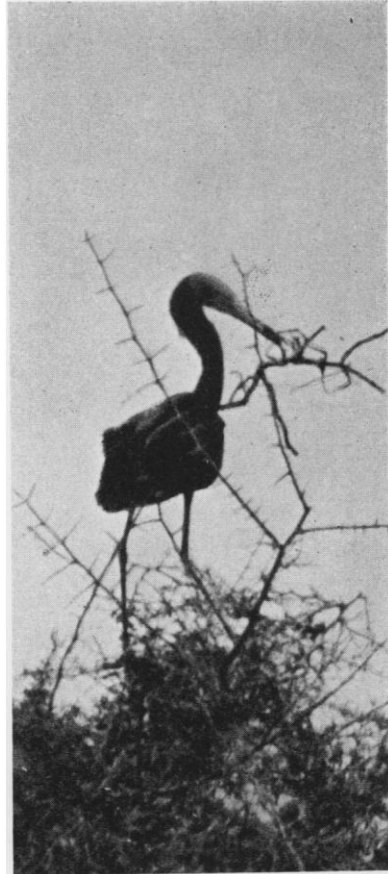


Fig. 3. REDDISH EGRET, WITH NEST MATERIAL, HAVING TROUBLE WITH THE BISBIRINDA.

placed as lining in old nests, but once in a while a bird carried a dead thorny twig found beneath a mesquite. Frequently a bird with a stick in its bill came close to me, and apparently utterly oblivious of my presence, placed the stick in a nest, moved it about for a moment or so and then flew away.

Mating had not been completed as yet and many nuptial displays were seen. The male would alight close beside the female and erect or ruffle out all the feathers of the entire body, with the possible exception of those of the abdomen, and spread them to the utmost. The long plumes of the back, neck and breast fluffed out and made the birds look as large as turkeys. During this display the body was usually hunched, the neck drawn in with the bill pointed upward at a steep angle. It lasted but a moment and try as I might I did not get a

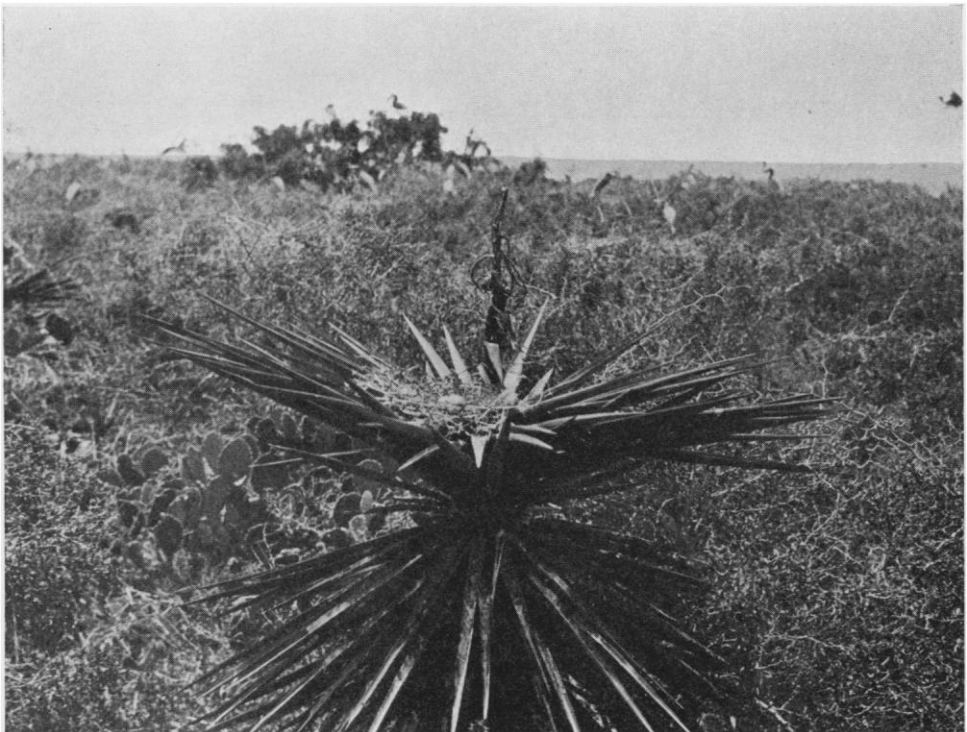


Fig. 4. NEST AND EGGS OF THE REDDISH EGRET.

photograph of the performance at its height. The female probably indulges also when she feels that she has acquired a mate, for two birds side by side were seen to go through the performance. Once an Egret in the white phase was seen performing before an Egret normally plumaged. Several mixed pairs of birds were noted and watched for some time to see if they stayed close to each other as if paired. I think that this ruffling of the plumage is indulged in as often as a demonstration by one male to another as for effect on a female. Thus when one male alighted near another frequently both birds ruffled their plumages before the newcomer became entirely settled.

Actual copulation was observed many times in the Reddish Egret. The male lit from the air on the back of the female who would be resting in her nest

looking pensively downward. The feet of the male were placed squarely on the back of the female. During the operation, the male of course squatting, the same erecting of plumage as in the nuptial display occurred. Many attempts were failures for the reason that if the female happened to be standing the male would disturb the equilibrium of the two when he lit on her back, especially if a gust of wind hit them just right.

The Reddish Egret in flight, is, I believe, more graceful than any other heron I have seen. The wing area must be larger in proportion to the size of the bird than in other herons, for there are moments when the bird handles itself after the manner of the vultures and albatrosses. Its flight is graceful, effortless and quite rapid. I found that near the end of the day the birds were entirely oblivious to man's presence. In this they resembled chickens on a roost very much. During the middle of the day they were more wary than at any other time. At any time, however, I found them to be easily frightened by the



Fig. 5. A MIXED PAIR. THE REDDISH EGRET IN WHITE PHASE WAS JUDGED TO BE THE MALE, FOR IT HAD JUST GONE THROUGH THE NUPTIAL DISPLAY TO THE NORMALLY PLUMAGED BIRD. THE TWO BIRDS ARE STANDING IN A NEST.

noise of the focal plane shutter of my camera. Waving of arms or shouting even in mid-day would get the undivided attention of every bird, but they would not fly. But every time the shutter dropped every bird within range would up into the air.

We slept on the island. Just before darkness the Egrets left for the mainland or some place in that direction. They formed a steady stream for half an hour. Near the end of their flight the Louisiana Herons began to leave and when it was quite dark the Night Herons could be heard squawking as they too left. During the night very little noise prevailed; I did not sleep well and noted this.

Our return to Point Isabel next morning was uneventful. Upon reaching Brownsville in a few days I talked with Mr. R. D. Camp, the State and Federal Game Warden for that district and also a veteran ornithologist, regarding Green

Island. He told me that on June 6 of the previous year he had visited it in company with Mr. T. Gilbert Pearson, with the idea of making the island a Federal Game Reserve, and that on that date all the species nesting there had practically finished breeding. This indicated that the 1921 season was a late one. Mr. Camp had not seen the Egrets during the beginning of the nesting season so he agreed to revisit the Island with me later in the month. Mr. A. J. Kirn came down from Oklahoma to join me and the three of us made the next trip, which was on May 26 and 27.

We arrived late in the afternoon, too late to make any systematic investigations, but a short walk into the brush showed me that a great change had taken place since the 10th, for now nesting was in full swing and nearly every nest contained eggs.



Fig. 6. A PAIR OF REDDISH EGRETS IN FULL BREEDING PLUMAGE. THE MALE, BIRD TO RIGHT, HAS JUST FINISHED THE NUPTIAL DISPLAY.

When the birds began to leave the island for their nightly fishing we made a count every few minutes of the number of Egrets passing during one minute. The start and finish of the flight was of course taken. The figures we got were as follows:

Flight began at 7:30; 7:40 to 7:41 we counted 63; 7:45 to 7:46 we counted 84; 7:48 to 7:49 we counted 10; 7:49 to 7:50 we counted 49; 7:55 to 7:56 we counted 39; 8:00, too dark to count, flight over.

By interpolating for minutes not counted these figures show that 1500 birds passed over us. All of these birds, Egrets only, were assumed to be males, the females remaining on the nests in probably equal numbers. Doubtless many males did not leave the island with the main flight and also others left from

other parts of the island. We agreed that 3000 would be the minimum number that could be placed on the Egrets.

During the middle of the day great flocks of Egrets stood in the shallow water at the north end of the island. Mr. Camp counted 1200 there next day. If these were all mates of sitting birds, double the number of Egrets must be present. At the other end of the island at the same time there was a large flock which was estimated to have 500 birds in it. These figures would allow an estimate of 3400 birds for the Reddish Egret population. We three agreed that many more might be present and we settled on a figure of 4000. We estimated the Louisiana Heron population at 2000, the Black-crowned Night Heron at about 100, and the Ward Heron at 50. Mr. Camp saw one Great White Heron (*Ardea occidentalis*).

The next day we were up early and commenced a careful examination of



Fig. 7. THIS REDDISH EGRET HAS JUST FINISHED THE NUPTIAL DISPLAY. THE SUPPOSED FEMALE IS DIRECTLY BEHIND HIM AND THE HEAD AND NECK OF A RIVAL MALE APPEAR TO THE RIGHT.

the nesting habits of the herons. We found the Egret nests to contain from one to four eggs, with three the normal complete set. About half the nests contained two eggs and very few contained four. Nearly all the nests were on top of either the bisbirinda or the Spanish dagger. The mesquites had very few, although some of the stunted and more robust carried nests. The Louisiana Heron built its nest usually on the side or midway up in the bushes, and rarely on top of anything. Many bushes had several nests in them and usually of both species. Three eggs constituted a full clutch. Although a few nests were found containing four eggs, the shape of the eggs in some of these made us think that two females had layed in the nest. Ward Heron nests contained from two to three eggs, and incubation had progressed farther with this species than with

any of the others. Nests of the Night Heron were hard to find, but evidently they were lagging behind the other species and had not commenced egg laying.

We had been in the brush only a short time when we began to notice numbers of freshly broken eggs lying in the nests. By looking for them we soon found that there was a tremendous number. They occurred in nests of all the three species which had eggs. It looked as if the birds on leaving their nests on our approach were breaking their own eggs. For some time we were perturbed at this state of affairs and determined to actually see a bird break its eggs. Birds sitting on eggs were approached, but as the bird left she never broke any eggs. Finally we discovered that it was the work of the Grackles (*Megascopus major macrourus*). Each of us separately saw these birds pounce into nests and pick holes in the eggs. In most cases the contents ran down through the nest and was wasted on the ground, but the Grackle always managed to get a few mouthfuls before the egg went dry. It looked as if a Grackle would have to break a great number of eggs before it would get a full meal. I saw Egrets drive the Grackles away from their nests frequently, so they are wise

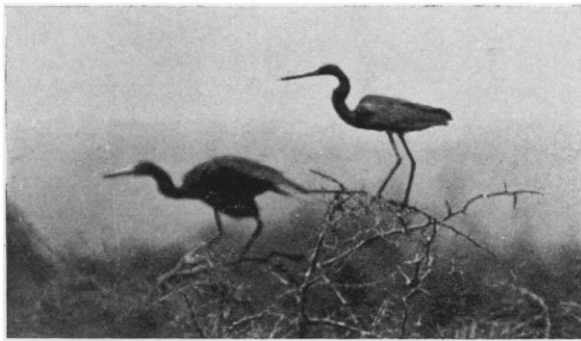


Fig. 8. LOUISIANA HERON AND REDDISH EGRET, SHOWING COMPARATIVE SIZE.

to their sole enemy. There were probably one hundred pairs of Grackles on the island and the damage done by this number must be very great. The Grackles build their nests in the same bushes with the Egrets and on that day many nests contained eggs. We smashed all we could find. Mr. Camp planned to return to the island later with the object of determining if the Grackles ate the newly hatched young, but was unable to do so.

Another remarkable thing about this island is that coyotes visit it, though it is about five miles from the mainland and more than that from Padre Island, the sand-bar. Their dung, tracks, and dens, and skeletons of partially eaten herons were all unmistakable evidence. No fresh water exists on the island so it is improbable that the coyotes can remain very long. The fruit of some of the cacti, dew and possibly other sources would supply the water wants on a short visit. Coyotes certainly can not see this island from the sand-bar. The Mexicans say that it is there that they come from. In times of great north winds the water is reputed to be blown out of the Laguna and on such an occasion a coyote might find the island as he ventured out on the mud flats for dead fish. We found that the Louisiana Heron is the principal victim of

the coyote, for there were a great many more carcasses of this species than of any other. None at all were found of either Ward or Night herons.

The Reddish Egret is a silent race, the only note being the squawk, which is far less forcible than that of the Night Heron. As the birds leave on their nightly fishing expedition they squawk more than at any other time. As they sit about their nests there is some snapping of beaks at intruders, Grackles, and even their mates.

Mr. Pearson, when visiting Green Island with Mr. Camp, stated that this colony is the largest in existence in the United States. He had seen all the others. I understand from Mr. Camp that arrangements have been completed for the turning of the island into a Federal Reserve. A warden will be placed on the island during the breeding season and he will poison, shoot and in other ways get rid of the Grackles and coyotes. Thus this fine colony will be permanently preserved.

Few land birds live on Green Island. Curve-billed Thrashers (*Toxostoma*



Fig. 9. THE GRACEFUL FLIGHT OF THE REDDISH EGRET.

curvirostre curvirostre) occur in small numbers. Mr. Camp found the nest with a set of four fresh eggs of the Texas Woodpecker (*Dryobates scalaris bairdi*) but this bird could hardly be expected to regularly nest on the island. Mr. Kirn found a nest with two fresh eggs of the Black Vulture (*Catharista urubu*) on the ground beneath a canopy of cactus (*Opuntia*) leaves. One family of Gray-tailed Cardinals (*Cardinalis cardinalis canicaudus*) was found.

One of the last happenings before we left the island was the arrival of a flock of about fifty Roseate Spoonbills (*Ajaia ajaia*). They settled in the shallow water on the north end of the island and at once began probing in the mud with their spatulate bills. They were too wary to permit an approach with a camera and flew away after only a short feed.

All the illustrations accompanying this article are from photographs taken by the writer at Green Island.

Tulsa, Oklahoma, November 21, 1921.